

WHAT IS CLAIMED IS:

- 1           1.           A pistol with loaded chamber indicator comprising:  
2           a chamber to receive a cartridge having a rim;  
3           a continuous circumferential seat surrounding the chamber that locates the rim  
4 of the cartridge; and  
5           an element positioned to contact the rim of the cartridge, the element  
6 displaceable to a loaded-chamber-indication position by contact with the cartridge rim.
- 1           2.           The pistol of claim 1, wherein the element is positioned in the loaded-  
2 chamber-indication position by contact with a side of the cartridge rim.
- 1           3.           The pistol of claim 1, wherein the element comprises a pivot to pivotally  
2 mount the element in the pistol.
- 1           4.           The pistol of claim 3, wherein the element is substantially rigid in  
2 structure such that the element does not bend by contact with the cartridge rim but is moveable  
3 about the pivot by contact with the cartridge rim.
- 1           5.           The pistol of claim 3, wherein the pivot comprises a pin.
- 1           6.           The pistol of claim 3, wherein the element comprises a sensor contact  
2 surface to operably contact the cartridge and a signal area to communicate the loaded chamber  
3 condition to a pistol user, the signal area being located at a distance farther from the pivot on  
4 the element than the sensor contact surface.
- 1           7.           The pistol of claim 6, wherein the signal area has an indicia to denote a  
2 loaded chamber condition.
- 1           8.           The pistol of claim 7, wherein the signal area is sized to include an  
2 indicia in the form of at least one alphanumeric character that is at least about 0.075 inches tall.
- 1           9.           The pistol of claim 1, wherein the pistol comprises an exterior surface  
2 and at least a portion of the element protrudes outwards from the exterior surface of the pistol  
3 in the loaded-chamber-indication position to provide a user of the pistol with a visual and  
4 tactile indication that the cartridge is in a loaded condition.

1           10.           The pistol of claim 1, wherein the chamber is sized to receive a 0.22  
2 caliber cartridge.

1           11.           The pistol of claim 10, wherein the element comprises a broadened  
2 portion that is flanged and has a thickness that is less than the thickness of an adjacent body  
3 portion of the element, the flanged portion laterally projecting outwards from the body portion  
4 in a direction generally towards the chamber when the element is mounted in pistol.

1           12.           The pistol of claim 11, further comprising the broadened portion having  
2 an arcuately shaped surface configured to contact the cartridge rim.

1           13.           The pistol of claim 1, wherein the element is positioned in the pistol to a  
2 lateral side of the chamber area and the element contacts the rim of the cartridge behind and  
3 outside of the chamber.

1           14.           The pistol of claim 1, wherein the element is displaceable by the  
2 cartridge rim in generally a lateral direction along a transverse axis with respect to the pistol.

1           15.           The pistol of claim 1, further comprising a biasing member mounted in  
2 the barrel-receiver assembly that biases the element towards the first position.

1           16.           The pistol of claim 15, wherein the biasing member is a spring.

1           17.           The pistol of claim 1, further comprising the chamber being disposed in  
2 a chamber block having a rear surface and the continuous circumferential seat is disposed on  
3 the rear surface, wherein the element contacts the cartridge rim at the rear surface with the  
4 cartridge loaded in the chamber.

1           18.           The pistol of claim 17, wherein the chamber block has sidewalls without  
2 cutouts to substantially support the cartridge.  
3

1           19.           The pistol of claim 1, wherein the cartridge rim holds the element in the  
2 loaded-chamber-indication position.

1           20.           A pistol with loaded chamber indicator comprising:

2 a barrel-receiver assembly having an exterior surface and defining a chamber  
3 that receives a cartridge having rim;  
4 a continuous circumferential seat surrounding the chamber that contacts the rim  
5 of the cartridge when the entire body of the cartridge is disposed in the chamber; and  
6 an indicating element positioned to contact the rim of the cartridge and  
7 simultaneously protrude outwards from the exterior surface of the barrel-receiver  
8 assembly.

1 21. The pistol of claim 20, wherein the indicating element is disposed in a  
2 first position wherein the cartridge rim does not contact the indicating element and a second  
3 position wherein the indicating element contacts the cartridge rim and protrudes outwards from  
4 the exterior surface of the barrel-receiver assembly.

1 22. The pistol of claim 21, wherein the indicating element does not protrude  
2 outwards from the exterior surface of the barrel-receiver assembly in the first position.

1 23. The pistol of claim 20, wherein the indicating element is pivotally  
2 mounted in the pistol about a pivot and is substantially rigid in structure such that the indicating  
3 element does not bend by contact with the cartridge rim but is moveable about the pivot by  
4 contact with the cartridge rim.

1 24. The pistol of claim 20, wherein the indicating element comprises a  
2 sensor contact surface to operably contact the cartridge and a signal area to communicate a  
3 loaded chamber condition to a user of the pistol, the signal area being located farther from the  
4 pivot on the indicating element than the sensor contact surface.

1 25. The pistol of claim 20, further comprising a biasing member that biases  
2 the indicating element towards the first position.

1 26. The pistol of claim 20, further comprising a continuous circumferential  
2 seat to abuttingly contact the cartridge rim when the cartridge is loaded in the chamber.

1 27. The pistol of claim 26, further comprising the chamber being disposed in  
2 a chamber block having a rear surface, and the circumferential seat located on the rear surface  
3 surrounding the chamber.

1           28.           The pistol of claim 20, wherein the indicating element comprises a  
2 longitudinally-extending substantially planar side and an opposite longitudinally extending  
3 irregularly-shaped side, the irregularly-shaped side facing towards the chamber to operably  
4 contact the cartridge rim.

1           29.           The pistol of claim 20, wherein the indicating element includes an  
2 indicia to denote a loaded chamber condition to a user of the pistol.

1           30.           A method of indicating a loaded pistol chamber comprising:  
2 locating a rim of a cartridge on a continuous circumferential seat; and  
3 displacing an element to a loaded-chamber-indication position with the rim of the cartridge.

1           31.           The method of claim 30, further comprising the step of protruding at  
2 least a portion of the indicating element outwards from an exterior surface of the pistol to  
3 provide a user of the pistol with a visual and tactile indication that a cartridge is loaded in the  
4 chamber.

1           32.           The method of claim 31, further comprising the step of retracting the  
2 indicating element inside the pistol to an unloaded-chamber-indication position in the absence  
3 of contact between the indicating element and cartridge rim.

1           33.           A pistol with loaded chamber indicator comprising:  
2 a housing that defines a chamber to receive a cartridge with a rim, the chamber  
3 being disposed along a longitudinal axis passing through the chamber;  
4 a firing pin offset from the longitudinal axis of the chamber; and  
5 an indicating element positioned to contact the rim of the cartridge, the element  
6 displaceable to a loaded-chamber-indication position by contact with the cartridge rim.

1           34.           The pistol of claim 33, wherein the chamber includes a continuous  
2 circumferential seat to locate the rim of the cartridge.

1           35.           The pistol of claim 33, further comprising the chamber disposed in a  
2 chamber block having sidewalls without cutouts, the chamber block substantially supporting  
3 the cartridge.

1           36.           A pistol with loaded chamber indicator comprising:  
2           a housing having an exterior surface;  
3           a barrel having a bore defining a longitudinal axis;  
4           a chamber having a longitudinal centerline to receive a cartridge with a rim, the  
5 chamber disposed adjacent to the barrel and positioned such that the chamber centerline  
6 and longitudinal axis are concentrically aligned;  
7           a firing pin offset from the centerline of the chamber; and  
8           an indicating element positioned to contact the rim of the cartridge and  
9 simultaneously protrude outwards from the exterior surface of the pistol housing to  
10 indicate a loaded chamber condition to a user of the pistol.

1           37.           The pistol of claim 36, wherein the indicating element is moveable from  
2 a first position wherein the cartridge rim does not contact the indicating element to a second  
3 position wherein the indicating element contacts the cartridge rim and simultaneously protrudes  
4 outwards from the exterior surface of the pistol.

1           38.           The pistol of claim 36, further comprising the chamber disposed in a  
2 chamber block having a continuous circumferential seat to provide abutting contact with the  
3 cartridge rim when the cartridge is loaded in the chamber.

1           39.           A pistol with loaded chamber indicator comprising:  
2           a frame;  
3           a trigger mounted to the frame;  
4           a barrel-receiver assembly having an exterior surface and defining a chamber  
5 that receives a cartridge having rim, the barrel-receiver assembly mounted to the frame;  
6           a continuous circumferential seat surrounding the chamber that supports the rim  
7 of the cartridge when the entire body of the cartridge is disposed in the chamber;  
8           a bolt slidably disposed in the barrel-receiver assembly;  
9           an indicating element positioned to contact the rim of the cartridge and  
10 simultaneously protrude outwards from the exterior surface of the barrel-receiver  
11 assembly; and

12 a spring to bias the indicating element towards a position wherein the indicating  
13 element does not protrude outwards from the exterior surface of the barrel-receiver  
14 assembly when not contacting the rim of the cartridge.